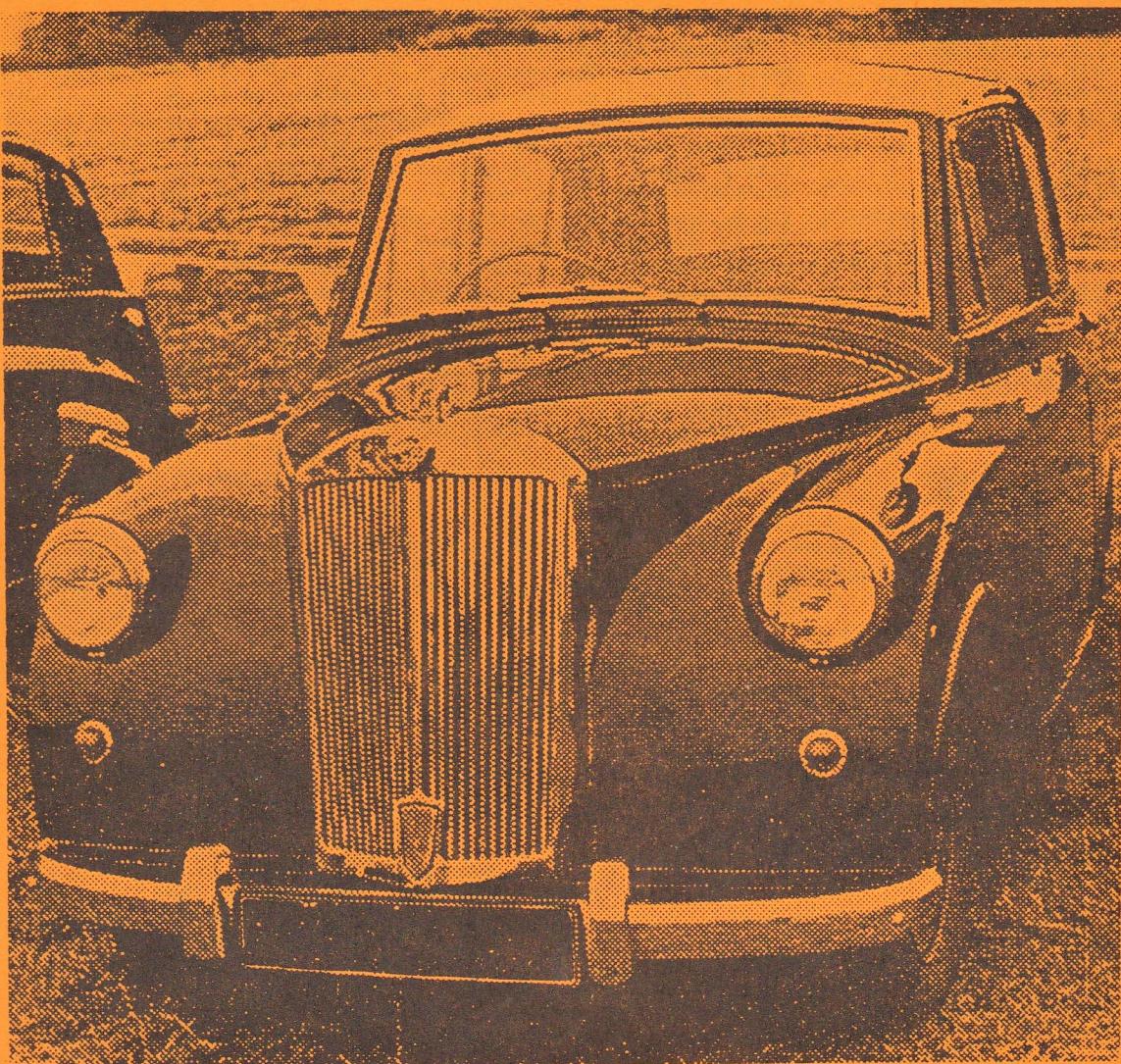


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Flower Power



**TRIUMPH
MAYFLOWER
CLUB**

AUTUMN 1982 ISSUE No 30

INSIDE
DETAILS OF AGM PLUS
NATIONAL RALLY
REPORT.

FLOWER POWER ISSUE No. 30

AUTUMN 1982

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ED'S PIECE

NOT much in this issue I'm afraid but you've all been a bit backward in sending all your : articles, hints , letters, problems, so it's a bit thin but that does not mean it's not important. In fact this is the most important of the year as it contains details of the A.G.M., which is most necessary for the future running of the Club. So please make the effort to attend.

YOU might be interested to know that I passed my typing exam, only the lowly Pitmans I'm afraid, but at least I've got something to show for it and although it might not appear as though I can type sometimes, at least I don't have that slow painful two finger routine to go through now. The girls on my course (I was the only male there,) wanted me to come back the next term to take a higher exam, I can't think why.

YOU might have noticed that we've been short of a Rally Secretary for some time now. The committee felt that with past showing that none of us had the urge to volunteer for the post and as the National Rally is run mainly by Malcolm with help from the rest of us that we would leave the post open so that if any-one asked why we didn't hold any other events that we could try to persuade he/she to take the post. Silence has been the result, but if anyone feels that they would like to have a go please let us know, either at the A.G.M. or by post. The reason I mentioned this now is because I have just read some bumf on Syon Park in Middlesex and think it would be nice to hold a meeting there as it has so many diversions, among which is the largest collection of B.L. cars in the country. So I am sticking my neck out and offering to organise an outing for next year if you'll let me know if you'd like to come. Sorry it's so far south but maybe someone up North would like to arrange an outing up there.

BY the time you read this I will have been to S.T.I.R. as the club is helping by booking in the contestants. It promises to be a great 'do' and I hope that many of you will make the effort to come. It's my first and I'm looking forward to it although it's a shame it's on the same week as the Beaulieu Autojumble which I missed last year as well.

I have recently bought a computer, (another reason that I learned to type,) and possibly by the next issue you will all be down on tape, so that I will be able to keep tabs on you easier, and also produce lists of members in given areas, or a list of how many 'Flowers' there are known to us in Britain. It must be a lot as for every ten letters I send out to potential members with cars, only one joins the club. I'm hoping eventually to buy a word processing cartridge and printer so that I will be able to layout and edit a complete page in one go and then print in seconds. Ah well! one can but dream.

DON'T forget to send in any material by NOVEMBER 24th for the Xmas issue.

Ed.

FOR SALE

FLOWERS FOR SALE

1952 Cotman Grey, Blue Vynide, needs respray. Two owners. Mr. Lewis, 7,Lydford Close, RHIWBINA, Cardiff Tel.612901 (After 6:30 pm) £250 ono.

BLACK, Expensive body work completed and new brake system and rebushing kit purchased, engine removed for reconditioning so trailer will be needed to remove the car. £80. A.Hicks,19, Commondale, Putney, LONDON.

1952 Black, black leather, taken to bare metal and rebuilt, resprayed to professional standard, retrimmed, rechromed, with over £150s worth of parts spent to make mechanically perfect. £1,200 ovno. Tel. L. Dyas, on St. Helens 33320.

PARTS offered i.e. Engine, gearbox, half shafts, bonnet, boot lid, and many many more. R.Arnold, 51, Lowtherville Road, Ventnor, Isle of Wight.

DISPOSAL of 1952 model whole or in part due to body-work deterioration. Mechanically sound. S.Moore, 76, Haslemere Road, LIPHOOK, Hants. GU30 7BN

WELCOME TO NEW MEMBERS

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YOUR CHAIRMAN'S WANDERINGS

HERE again comes the time when I write my piece and hoping that it will make sense to You all. First of all, may I say a really big 'THANK YOU' to all MEMBERS and COMMITTEE that came along to our NATIONAL RALLY and really made it a great day, to those who did not or could not come along, I am sure that You missed a great day amongst Friends and 'FLOWERS'. Here I would like to say a Special 'Thank You' to BARRY FRARY of ROTHERHAM, whom I seem to meet in so many places during the Year and I can assure You all that He makes a habit of taking something back home for the sideboard. This National Rally was no exception, for he took home the First in Class (Concours). Well done Barry.

AGAIN it was great to have our Friends of the RAZOR EDGE OWNERS CLUB join us in this joint venture, so to TOM ROBINSON and his Merry Band, 'Thank You' for helping to make this effort again a very happy and I hope a successful one. You will read elsewhere a list of the various Winners of the Events Etc. that was put on for your entertainment and to those who travelled far and picked up no Prizes, may I say that the memory of a great day out and the meeting of old and new friends made it an entertaining day for all.

NOW, what next? I feel that I should say a word here about the most important Event of the Year, that being the ANNUAL GENERAL MEETING. This is where You all come in, for it is Your Club and the decisions taken at that Meeting, governs the immediate future of the Club. The Venue is the same as in the last few Years. Come along and let us know what You want from the Club for without Your suggestions and proposals we shall continue in the same way as before. Your voice and Your vote is what we require. Please join us and give the Club your support.

P.J.H.

PLEA FROM YOUR MEMBERSHIP SECRETARY

PLEASE could those members who have yet to send in their subscriptions for this year do so at once. The finances of the General account run pretty close to the red each year and as only a little under 2/3rds of you have paid this year so far we need your monies. Also it makes it nigh impossible for me to produce an up-to-date membership list, for I would have to leave almost half of you off, also for how long do I give grace. As it is now six months since renewal date those members who have not paid by 24th NOVEMBER WILL RECEIVE NO FURTHER COPIES of the F.P.

THE ANNUAL GENERAL MEETING, 1982.

SUNDAY 17th OCTOBER

AS usual the A.G.M. will take place at "The Two Boats Inn", Long Itchington, on the A423 about 7 miles south of Coventry, starting at about 2:15 pm. There have been no motions sent in so business will be fairly straightforward, with the order as follows:

AGENDA

- 1) Apologies for absence.
- 2) Minutes of the AGM 1981.
- 3) Matters arising from the Minutes.
- 4) Hon Secretary's Report.
- 5) Hon Treasurer's Report.
- 6) Hon Rally Secretary's Report.
- 7) Hon Spares Secretary's Report.
- 8) Hon Membership Secretary's Report.
- 9) Chairman's Review.
- 10) To fix subscription rates for 1983.
- 11) Election of Officers and Committee Members, appointment of Auditors.
- 12) Any Other Business.
- 13) Informal Discussion.

IF any of you have the urge to have a go at being an Officer of the Club, please come along and say so for although at this time I think that all the committee will stand, I'm sure that there are those that would willingly stand down for new blood.

EVEN if you don't particularly feel strongly about the way the club is run, or don't feel you have anything to contribute, please come along anyway as we need a quorum and would be pleased to see you for a chat. And it is your Club and only exists with support from you.

★★★

YET again Phil Hall has come to the rescue by donating 1000 new membership cards to the club. Many thanks Phil from all of us. So now I can begin sending out your new cards, in fact some of you should get yours with this issue, I hope!

Gus

Rallyscene

NATIONAL RALLY REPORT

NATIONAL RALLY REPORT

THE 18th July saw me lying in till 6 am. (normally 4:30 am for me!), eating a leisurely breakfast and then setting out in absolutely glorious sunshine for Ragley Hall. On reaching Stratford on Avon I drove into a solid line of black cloud and steady drizzle. Luckily though within two hours it had stopped and although it remained overcast all day, the sun coming out for the Prize giving, it was quite pleasant. As Tom Robinson pointed out, any day it doesn't rain in England has to be considered good.

AFTER setting out the layout of the rally with few committee members and helpers, the Cars began to arrive and within a short time we had a good number present, unlike last year when they seem to arrive at 1/2 hour intervals all day. This year the Renowns

put on a good show beating us by about six cars, so that all in all we had about forty cars there. As the Standard Motor Club had it's rally the same day we didn't get many visitors, in fact I only saw one Standard there. Although some did arrive with some non-member Mayflowers at the end of the meeting, having popped in after their own rally finished.

THE standard of the cars was fairly high and the top three were very close. First was B. Fray with J. Gogay only one point behind. Infact only 3 points separated the top four cars. Highly commended was R. Hagger whose Flower arrived yet again on the trailer, looking almost complete. Next year we expect to see it towing the trailer for it surely couldn't come without it having arrived in this fashion for the last three years.

The driving test didn't seem to cause anyone any problems, (I think it should have been harder Derek.) and the winner was C. Holt, and J. Baker second. As the only Lady to enter the competition, E. Mills despite much foolery and giggling with her female companion, managed to win the Miss Wheeler Trophy.

Rally Report Cond...

A. Smethurst travelled 208 miles from Blackburn to take away the Distance Award and Mr. Tearle won the Dinky Concours.

Phil Hall for some inexplicable reason brought about 50 gumboots, which would not have disgraced 'Compo', and we had a welly throwing contest in which yours truly was only beaten by Derek Goodyear (coincidental, what?) because they only explained the rules after I'd thrown.

A very nice Triumph Roadster owned by a Mr. J. Ward won the Visitors Concours, whilst your Editor was presented the Chairmans Cup. As this is awarded by the Chairman to the person who he considers has done the most for the Club over the year and as I know how little I've done, then I can only conclude that 'bugger all' has been done this year and it was only to make up for disqualifying me in the Welly Throwing. Seriously Phil it is appreciated.

WHAT with meeting members, some friendly, and chatting to many nice people about their cars, and the Club, the day sped past. Although I didn't get time to visit the Hall I was told it was very fine. The setting was pleasant though I didn't think

setting was pleasant enough I didn't think the amenities were up to much, not as good as last year at Knebworth, in fact I know that some parents were getting fed up with their offspring continually pestering for money for those damn 'Invader' machines that seem to infest everywhere now.

EVERYONE there seemed to have enjoyed themselves and holding the Rally jointly with our friends of TROC definitely seems successful so let's hope we'll meet again next year for a enjoyable day out.

G11S

Cars for collectors

THE TRIUMPH MAYFLOWER

Introduced at the London Motor Show of 1949, the Triumph Mayflower caused quite a sensation and aroused much comment with its 'boxy' razor-edge styling. Similar in concept to its larger stablemate, the Renown 1800/2000 saloon, the little Mayflower, although possessing great charm, did not have quite the same elegance of line: on the contrary, it looked somewhat over-bodied. Nevertheless it represented a pleasant change from the usual 'run of the mill' small cars of that period.

The Mayflower was however in a class of its own, a luxury family saloon which, priced at under £500 when announced, found many eager buyers and made many friends during its short production life to September 1953. By this time though, the price-tag was almost half as much again and it was clearly becoming uneconomic to continue manufacture.

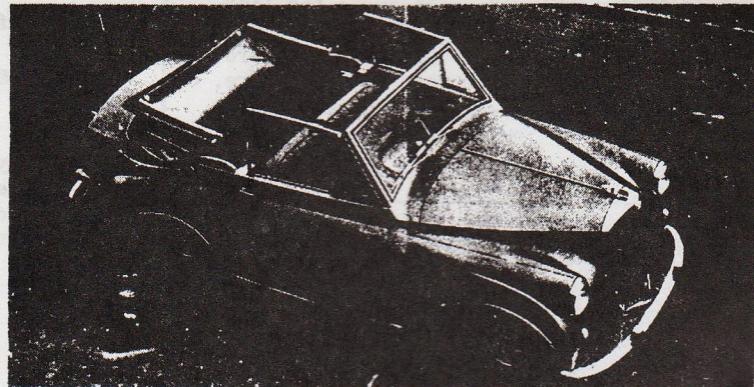
Mechanically uninspiring the engine was a conventional 4 cyl. 1247 cc side-valve unit of early Standard ancestry, developing a modest 35 b.h.p.* at 4,200 r.p.m.; later increased to 38 b.h.p.

Leisurely

With an overall weight of almost 18 cwt., performance was distinctly leisurely, a maximum speed in the region of 68 m.p.h., being possible. Fuel consumption however, was a respectable 35 m.p.g., under favourable conditions and sympathetic driving.

A simple transmission line via 3-speed all synchromesh box (column operated) to a Hypoidbevel back axle was used.

The two-door body was integral with a rigid pressed steel chassis of somewhat unusual design, being of buttress construction at strategic points. This gave an ex-



tremely rigid structure without the penalty of excess height.

According to the catalogues of the day, the whole bodyshell was 'Bonderized' to inhibit corrosion, but judging by the number of decayed Mayflowers to be seen some years later, the process was apparently non-too successful. To be fair, though, the model was probably no worse than comparable vehicles from rival manufacturers. However, there aren't many Mayflowers around nowadays.

Conventional suspension was employed, coil independent at the front with semi-elliptics at the rear. This arrangement gave quite acceptable ride qualities and good road manners by the standards of the day.

Export

During the first few months of production, Mayflowers were for export only and very few appeared on the home market. Naturally, long waiting lists ensued.

In October 1950 a delightful Drophead Coupe/Convertible version was announced, but regrettably only a handful were ever produced before it was officially withdrawn from production in January 1951. This model is a collector's piece, and I can recall

only ever seeing one example many years ago, although I did notice one advertised last year "sensible offer required" — one can only guess at the definition of 'sensible' these days?

To a lesser extent both the Mayflower and Renown saloons are beginning to attract a following. Owners' Clubs have been formed to assist enthusiasts of these vehicles with spares and technical problems etc; if interested, enquiries should be directed as follows: Triumph Mayflower Club, P. Hall, 75 Morley Road, Staple Hill, Bristol and Triumph Razor Edge Club: S. Langton, 25 Mawbays Lane, Appleby Magna, Burton-on-Trent.

Prices of good second-hand examples start at around £500 and for everyday use, they are still fairly practical, although the spares situation is beginning to be a problem on certain items but not impossible.

A few people may recall the attractive little Railton 10 saloon and Drophead. This car was not unlike the Mayflower, both in concept and appearance, coincidentally this too was powered by a Standard 10 engine. The Railton, however, was only a three-seater, the rear passenger sitting transversely, but that's another story!

Remove the tappet cover and packing.

Withdraw the two setscrews, which secure the outer abutment bracket to the inner one and remove the latter bracket, taking care not to drop the packing shims into the sump.

Remove the two bolts, which secure the main abutment bracket and inner ends of the two guide blocks to the cylinder block, and withdraw this bracket.

Remove the petrol pump and withdraw the operating spindle. This operation is necessary before refitting the distributor shaft, to allow the cam to pass over its operating spindle, which is loaded by pump spring pressure. It will also permit the vertical driving shaft to go properly home.

Remove the driving pin retaining clip and withdraw the pin.

The driving shaft can now be withdrawn.

The Camshaft and Timing Gears.

The camshaft for engines up to and including engine number TT 1407E is made of a special alloy cast iron, which has chilled faces for the eight cams and four journals. No bearings are provided for the camshaft, the four journals being accommodated in the housings machined in the cylinder block.

From engine number TT1408E a change in material was made to a case hardened steel camshaft, which is bonderised after finished grinding.

With this change of camshaft material, which naturally affects the helical driving gear, a similar change in material was made for the driven gear and it is important to pair equivalent specifications when changing the camshaft for any reason.

End thrust of the camshaft is taken by a keep plate which is bolted to the front engine plate and cylinder block.

To Remove the Camshaft.

Drain the water and remove the radiator and grille.

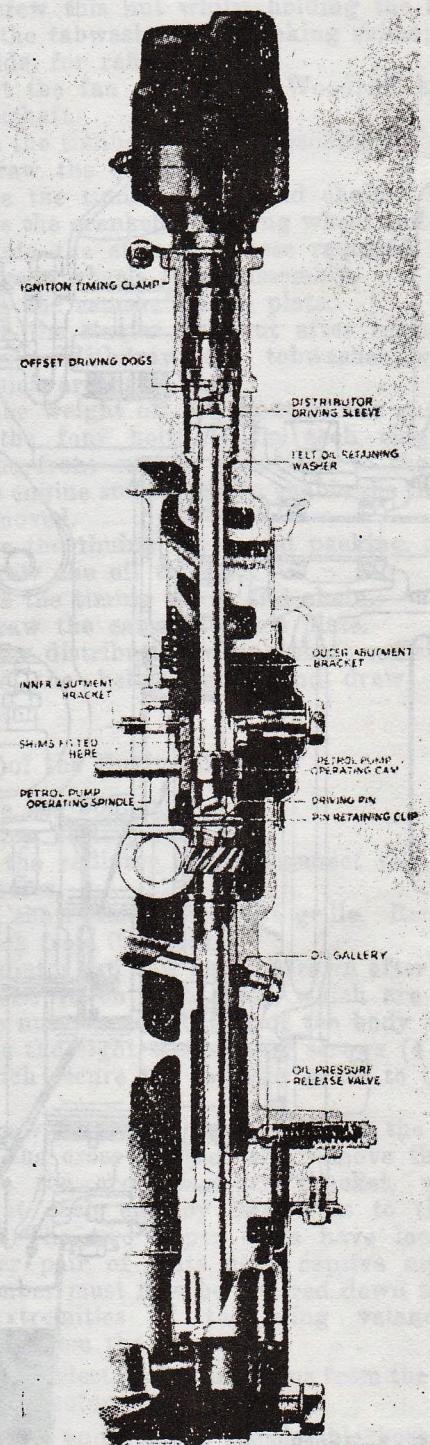
Remove the manifold assembly.

Remove the tappet cover.

Withdraw the petrol pump after removal of the two securing nuts; the removal of the petrol pump is necessary to free the operating spindle from its cam on the vertical shaft.

Withdraw the distributor head after detachment of the H.T. and L.T. connections and the removal of the two securing nuts.

Remove the distributor and oil pump driving gear abutment and tappet guide block.



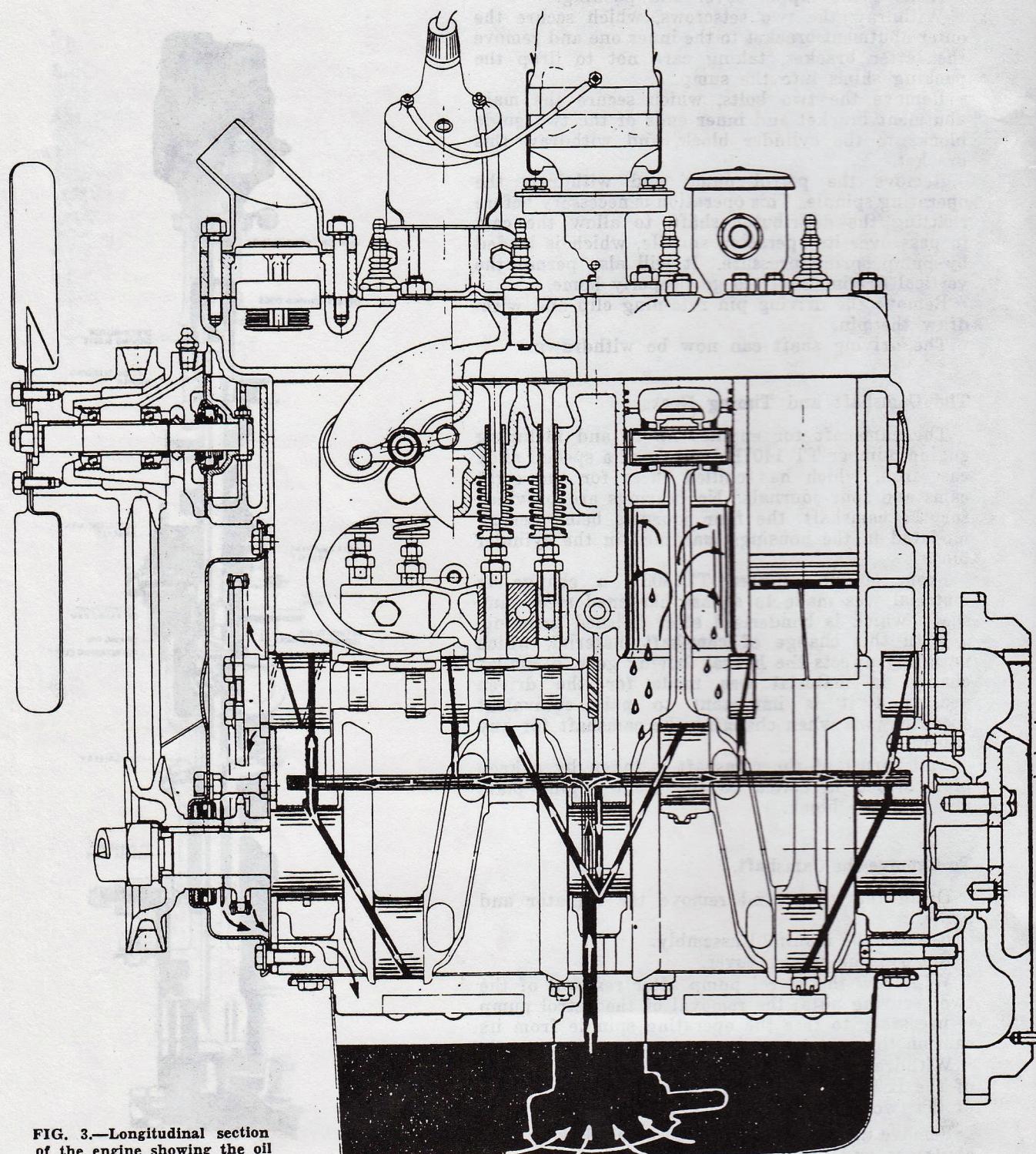


FIG. 3.—Longitudinal section
of the engine showing the oil
circulation.

Disconnect the clutch coupling rods by removal of the nut, which secures the trunnion piece to the clutch operating lever and the split pin which attaches the other rod to its flexible coupling bracket.

Disconnect the two gear operating cross shafts from their attachment to the respective levers.

Apply a lifting bracket to the cylinder head and take the weight of the engine.

Remove the two Simmonds nuts which secure the gearbox extension bracket to the cross member.

Having taken the weight off the cross member with a lifting jack and detaching the petrol pipe holding clip from the member, remove the two bolts from the cross member, and withdraw this member.

Remove the four (2 on each side of the engine) bolts which secure the front engine mountings to the chassis side member. The earthing wire will come away with one of these bolts.

If the rear supports for the car are high enough, the lifting out of the engine unit should now be a straight forward operation. Care should be taken not to damage the steering centre tie rod when removing the engine.

Dismantling the Engine Unit.

Remove the starter motor.

Detach the gearbox and clutch housing.

Remove the clutch assembly.

Detach the air cleaner after removal of the crankcase ventilation hose connection and one cylinder head nut and one manifold nut.

Remove the distributor from the cylinder head, after first detaching the high and low tension connections to the coil and removing the sparking plug leads at the terminals. Release the distributor. Do not interfere with the clamping bracket as this will upset the ignition timing.

Remove the inlet and outlet water hose.

Detach the thermostat and housing.

Remove the dynamo and fan belt.

Detach the petrol pump (When reassembling the engine, leave the fitting of the petrol pump and operating spindle until the distributor shaft and gear have been installed.)

Detach the carburettor.

Remove the crankcase ventilation pipe from the manifold and adaptor on the tappet cover.

Remove the manifold, after releasing the securing nuts and bolts.

Withdraw the tappet cover and packing.

Remove the coil with its bracket.

Detach the crankcase ventilation pipe from the adaptor in the oil filler and at the cylinder head nut.

Remove the cylinder head, gasket, petrol pipe and throttle abutment bracket.

Detach the water pump.

Release the tabwasher from the starter dog nut and unscrew this nut whilst holding the flywheel. Remove the tabwasher and packing shims; lay the shims aside for refitting.

Extract the fan pulley and Woodruff key from the crankshaft.

Detach the timing cover and packings.

Withdraw the oil thrower.

Remove the timing wheel and chain.

Remove the crankshaft timing wheel and packing shims. Note the shim thickness required to align the two gear wheels for re-assembly.

Remove the camshaft keep plate.

Remove the starter dog nut after releasing the tabwasher. Withdraw the tabwasher with any shims which are fitted.

Take the weight off the front of the engine and remove the four bolts (2 on each side) which secure the front engine mountings to the chassis. Raise the engine sufficiently to enable the fan pulley to be removed.

Remove the timing cover and packing.

Withdraw the oil thrower.

Remove the timing wheel and chain.

Withdraw the camshaft keep plate.

Raise the distributor driving shaft sufficiently to disengage the helical gear and draw out the camshaft.

Removal of the Engine Unit.

Remove the bonnet.

Remove a battery lead.

Drain the radiator and disconnect the top and bottom hoses.

Detach the radiator from the grille. Remove the lifting jack from its bracket.

The radiator can now be withdrawn after removal of six bolts (3 on each side), which are screwed into cage nuts on either side of the body valances.

Remove the eight self-tapping screws (4 on each side) which secure the radiator grille to the wing valances.

Withdraw the two bolts which secure the radiator grille to the cross member and remove the grille.

Remove the cross member bracket, which is secured at each end by two bolts to the wing valances. The two upper bolts have loose nuts. The lower pair of bolts have captive nuts. The cross member must now be lowered down the channelled extremities of the wing valances and withdrawn from the front.

Detach the electrical connections from the dynamo and starter motor.

Disconnect and remove the flexible hose connection to the petrol pump.

Detach the exhaust downtake pipe from the manifold.

Detach the thermometer lead from the cylinder head.

Where a heater is fitted disconnect the inlet and outlet hose connections.

Detach the oil pressure gauge flexible hose connection.

Detach the throttle wire on the throttle lever trunnion piece.

Jack up the rear of the car and apply supports under the rear jacking brackets.

Remove the propellor shaft.

Remove the front engine bearer plate, after withdrawal of three securing setscrews (2 only for the 1st 25 engines).

Remove the distributor shaft abutment outer bracket with packing shims. Note the packing shims for reassembly and the position of the machined portion of the bracket towards the skew gear with .003 gap. Shims should be just sufficient to provide a clearance between shaft and bracket.

Remove the valve tappet guide blocks and inner portion of the distributor shaft abutment.

Note the position of the longer pair of setscrews, through the inner ends of the two guide blocks and abutment bridge piece, for reassembly.

Remove the spring clip from the distributor shaft. Withdraw the locking pin.

Remove the distributor shaft and driving gear. Withdraw the camshaft.

Withdraw the fuel pump spindle.

Remove the valve spring collars, springs and valves. Note the numbering of the valves from the front of the engine.

Withdraw the oil sump.

Remove the flywheel.

Remove the oil pump and floating filter with packing.

Remove the locking wire from the heads of the sealing block securing screws and withdraw the screws. Tap out the sealing block.

Remove the aluminium oil retaining cover after withdrawal of the 5 securing setscrews and withdrawal of the locking wire from the inside bolts.

Remove the connecting rod caps. Note the position of the markings on the connecting rods in relation to those on the cylinder block.

Remove the main bearing caps. Note the markings on the bearing caps in relation to those on the cylinder block flange.

Remove the crankshaft and oilite bush for the constant pinion shaft spigot.

Remove the connecting rods and piston assemblies, noting the lettering on the piston tops and cylinder

block, also the offsetting of the big end housings on the front and rear pair of assemblies. Remove the gudgeon pin circlips, push out the pins and release the piston assemblies.

Reassembly of the Engine.

Reassembly of the engine involves approximately the reverse procedure to that employed for dismantling. When reassembling, apart from the normal replacement of defective or worn parts, attention is drawn to the following points:—

Carefully clean the cylinder block, ensuring that the core plugs are in order. Blow out the oil ways with compressed air. Examine the cylinder bores for excessive wear and where this exceeds .007 at the tops of the bores, regrounding of the cylinder block will be required. Where wear is appreciably less than this figure, the replacement of worn pistons and rings should be satisfactory.

Three sizes of pistons are used, "F" slightly below nominal size, "G" mean size and "H" slightly oversize. The piston tops are marked with the appropriate letter and the right hand upper side of the cylinder block, adjacent to the piston, is similarly identified. Replace "F" or "G" marked pistons by ones having an "H" marking, where it is considered replacements are required and a rebore is not justified.

Examine the crankshaft bearings for wear or damage. Where the clearance exceeds that given, new bearings should be fitted and where the crankshaft wear exceeds that given, or where the journals are scored, the crankshaft should be reground to suit the undersize bearings available, i.e., —.020, —.030 or —.040. No attempt should be made to take up wear by filing the bearing caps. Where such filing has occurred the main bearing housings will have to be line bored and the big end bearing housings similarly restored to their original dimensions.

When refitting the timing wheels and chain, where the timing wheels are marked, the markings should be matched up with the driving side of the chain held tight. Varying degrees of adjustment may be arranged by employing the two alternative pairs of holes in the camshaft.

The distributor shaft should be fitted before the petrol pump, otherwise some difficulty will be met in engaging the cam for the petrol pump with the operating spindle and thus preventing the engagement of the helical gears. Before engaging the distributor shaft, the engine should be turned until No. 1 cylinder is on T.D.C. of the compression stroke.

When refitting the distributor outer abutment bracket and shims, sufficient shims should be used to ensure a working clearance between the shaft

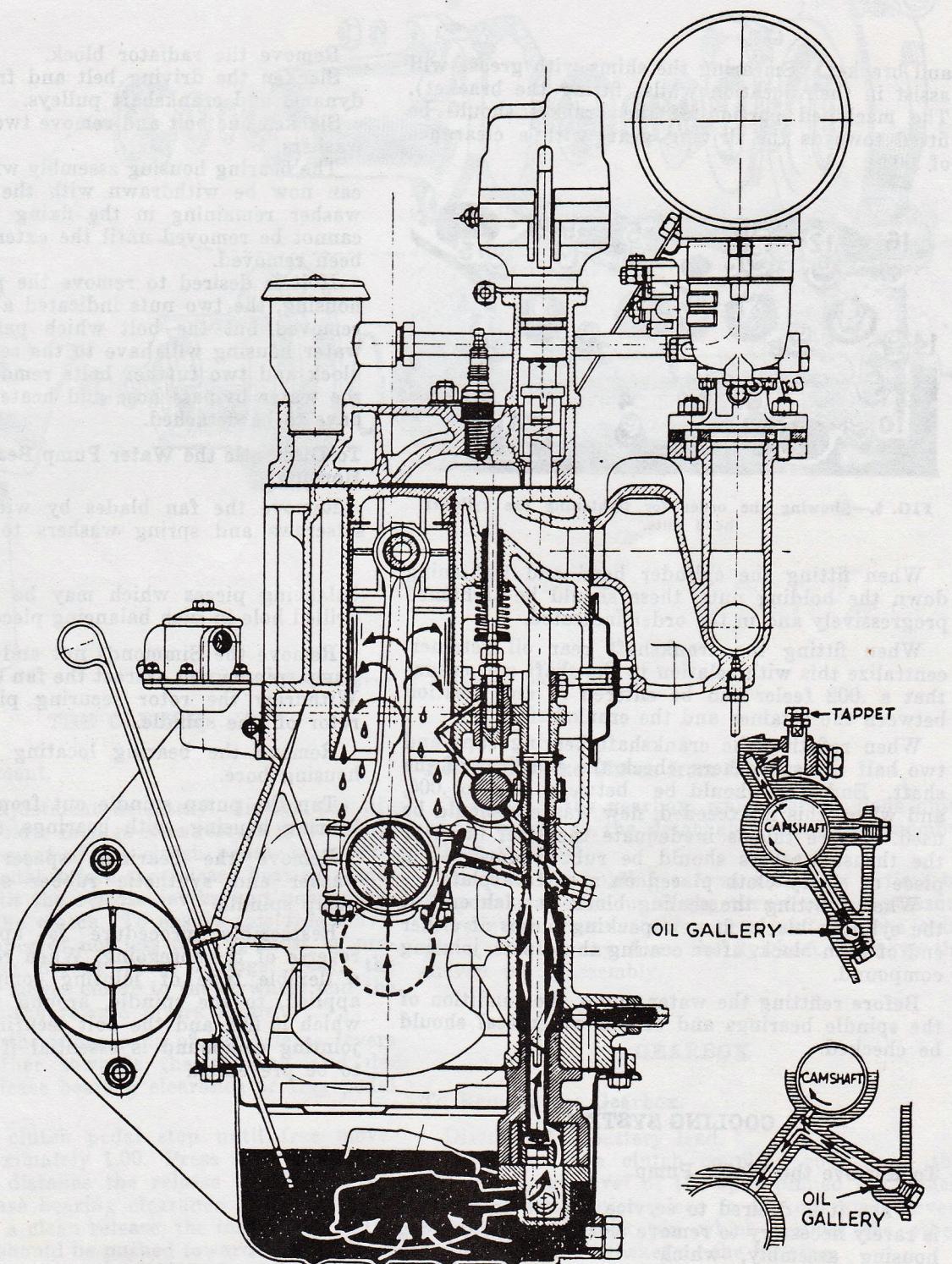


FIG. 4.—Cross sectional view of the engine showing the oil circulation.

and bracket. (Smearing the shims with grease will assist in their location whilst fitting the bracket). The machined portion of the bracket should be fitted towards the driving gear, with a clearance of .003.

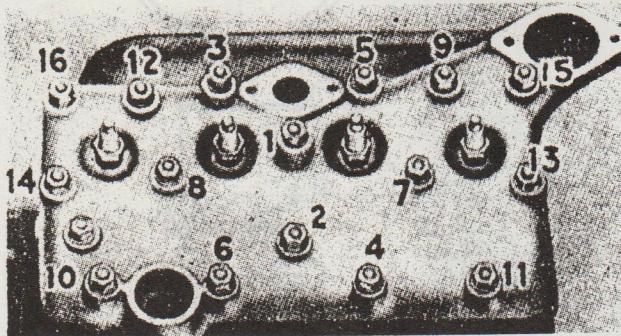


FIG. 5.—Showing the order for tightening the cylinder head nuts.

When fitting the cylinder head and tightening down the holding nuts, these should be tightened progressively and in the order indicated.

When fitting the crankshaft rear oil retainer, centralize this with relation to the shaft and ensure that a .002 feeler can be entered in any position between the retainer and the crankshaft.

When refitting the crankshaft bearing caps and two half thrust washers, check the end float of the shaft. End float should be between .004 to .006, and where this is exceeded, new washers should be used. Where this is inadequate the steel faces of the thrust washers should be rubbed down on a piece of emery cloth placed on a surface plate.

When refitting the sealing block at each end of the cylinder block, fit new packing pieces at either end of each block, after coating these with jointing compound.

Before refitting the water pump, the condition of the spindle bearings and of the water seal should be checked.

COOLING SYSTEM

To Remove the Water Pump.

When it is desired to service the water pump it is rarely necessary to remove more than the bearing housing assembly, which will include the fan extension bracket and blade assembly. The water housing normally need not be removed and the following is the procedure to use:—

Drain the radiator.

Remove the radiator block.

Slacken the driving belt and free this from the dynamo and crankshaft pulleys.

Slacken one bolt and remove two nuts and spring washers.

The bearing housing assembly with the fan blades can now be withdrawn with the bolt and spring washer remaining in the fixing flange. The bolt cannot be removed until the extension bracket has been removed.

If it is desired to remove the pump with water housing, the two nuts indicated above need not be removed but the bolt which passes through the water housing will have to be screwed out of the block and two further bolts removed. In addition, the water by-pass hose and heater connection will have to be detached.

To Dismantle the Water Pump Bearing Housing.

Remove the fan blades by withdrawal of four setscrews and spring washers together with any

balancing pieces which may be in use. Note the drilled hole in such balancing pieces for reassembly.

Remove the Simmonds nut and washer from the pump spindle and extract the fan extension bracket. Withdraw the rotor securing pin and lever the rotor off the spindle.

Remove the bearing locating circlip from the housing bore.

Tap the pump spindle out from the rear of the bearing housing, with bearings, spacer etc.

Remove the bearings, spacer circlips, thrust washer and synthetic rubber spinner from the pump spindle.

Reassembly procedure is approximately the reverse of the foregoing. When refitting the rotor, a flexible type of jointing compound should be applied, to the spindle, around the hole through which it fits, and the bolt securing the rotor. The jointing compound is essential if a water leak is to be prevented.

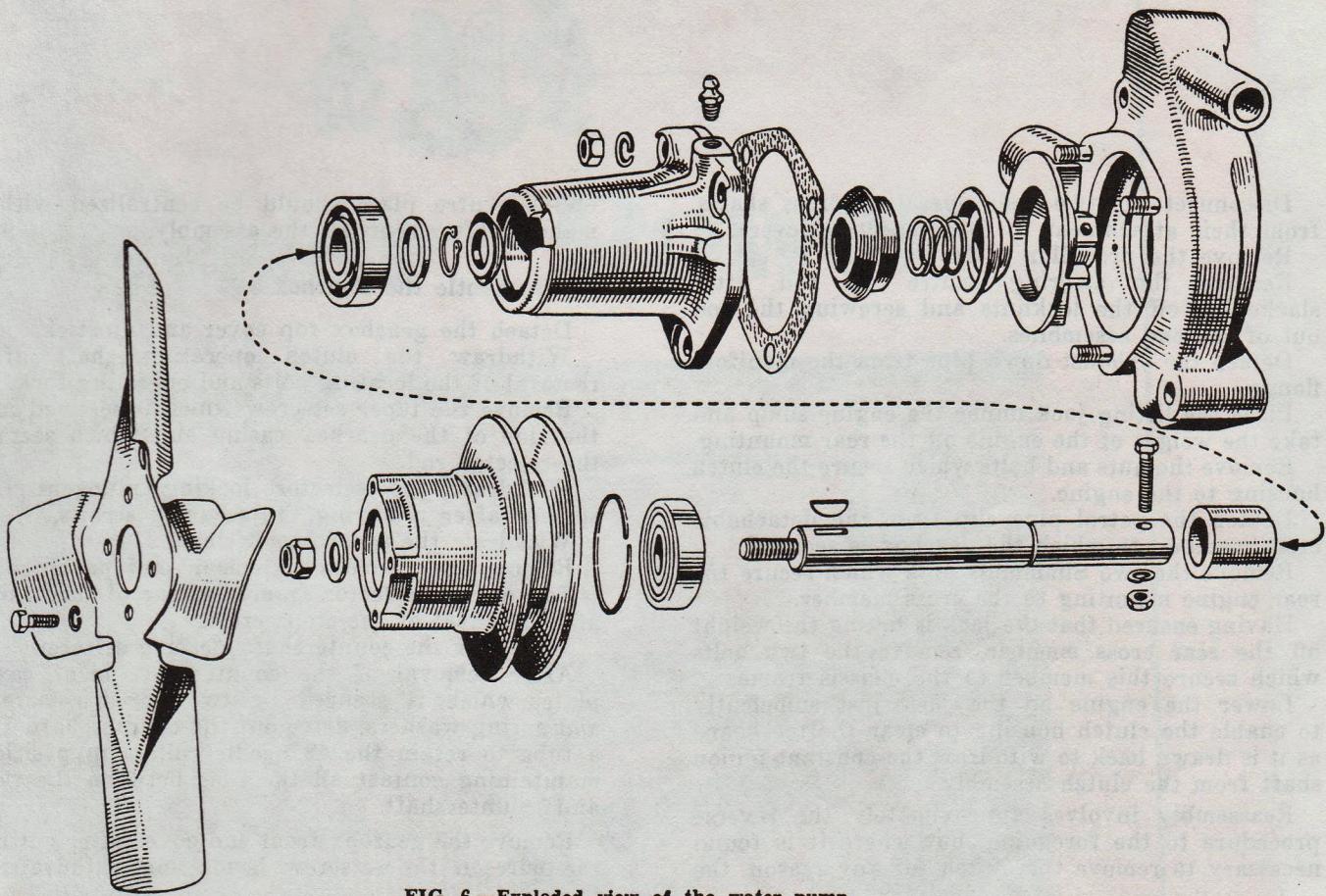


FIG. 6.—Exploded view of the water pump.

THE CLUTCH

Pedal Adjustment.

The only adjustment necessary through the life of the driven plate facings is to restore periodically the free movement of the clutch pedal, i.e., movement of the pedal before the release bearing comes in contact with the release levers and commences to withdraw the clutch. To ensure this free movement, a clearance of not less than $\frac{1}{8}$ must be provided. As the driven plate facings wear, the pressure plate moves closer to the flywheel and the outer ends of the release levers follow.

This causes the inner ends of the release levers to travel further towards the gearbox and decreases the release bearing clearance or free pedal movement.

Adjust the clutch pedal stop until free movement is approximately 1.00. Press the pedal down and note the distance the release bearing travels after the release bearing clearance has been taken up. To obtain a clean release, the inner ends of the release levers should be pushed towards the flywheel .50. When the inner ends of the release levers have travelled this amount and no more, the clutch pedal should be in contact with the pedal stop. If such is not the case, the stop must be adjusted.

Should excessive pedal movement be made to release the clutch, this leads to close coiling of the thrust springs, after which any pedal pressure exerted only tends to overstress the release gear and internal parts of the clutch.

Removal of the Clutch from the Chassis.

Withdraw the gearbox, which can be done quite easily owing to the detachable rear cross member which is fitted.

Slacken the holding screws a turn at a time by diagonal selection until the thrust spring pressure is relieved. Remove the screws and lift the complete clutch away from the flywheel. Remove the driven plate assembly.

GEARBOX

To Remove the Gearbox.

Disconnect a battery lead.

Disconnect the clutch coupling rods from the housing by removal of the split pinned nut which secures the trunnion piece to the operating lever. Withdraw the split pin which secures the other rod to the fixed bracket on the housing.

Disconnect the two gear operating cross shafts, from their attachment to the respective levers.

Remove the propellor shaft.

Remove the steering centre tie rod after slackening off the locknuts and screwing the rod out of the end assemblies.

Detach the exhaust down pipe from the manifold flange.

Place the lifting jack under the engine sump and take the weight of the engine off the rear mounting.

Remove the nuts and bolts which secure the clutch housing to the engine.

Detach the petrol pipe clip from the detachable cross member, to which the gearbox is secured.

Remove the two Simmonds nuts which secure the rear engine mounting to the cross member.

Having ensured that the jack is taking the weight off the rear cross member, remove the two bolts which secure this member to the chassis frame.

Lower the engine on the jack just sufficiently to enable the clutch housing to clear the toe board as it is drawn back to withdraw the constant pinion shaft from the clutch assembly.

Reassembly involves approximately the reverse procedure to the foregoing, but where it is found necessary to remove the clutch for any reason, the

clutch centre plate should be centralized with mandrel after refitting the assembly.

To Dismantle the Gearbox.

Detach the gearbox top cover and dipstick.

Withdraw the clutch operating shaft after removal of the locating bolts and operating fork.

Remove the taper setscrew which is screwed into the side of the gearbox casing and which secures the selector rod.

Withdraw the selector locking plungers and springs after removing the securing screws.

Withdraw the speedometer drive.

Remove the gearbox extension and packing.

Tap out the selector from the rear of the casing after removal of the stop screw.

Withdraw the countershaft locating setscrew.

After removal of the countershaft front cover plate, which is secured by two wired setscrews and spring washers, drive out the countershaft. Use a tube to retain the 48 needle rollers in position, maintaining contact all the time between the tube and countershaft.

Remove the gearbox front end cover after cutting the wire in the setscrew heads and withdrawing

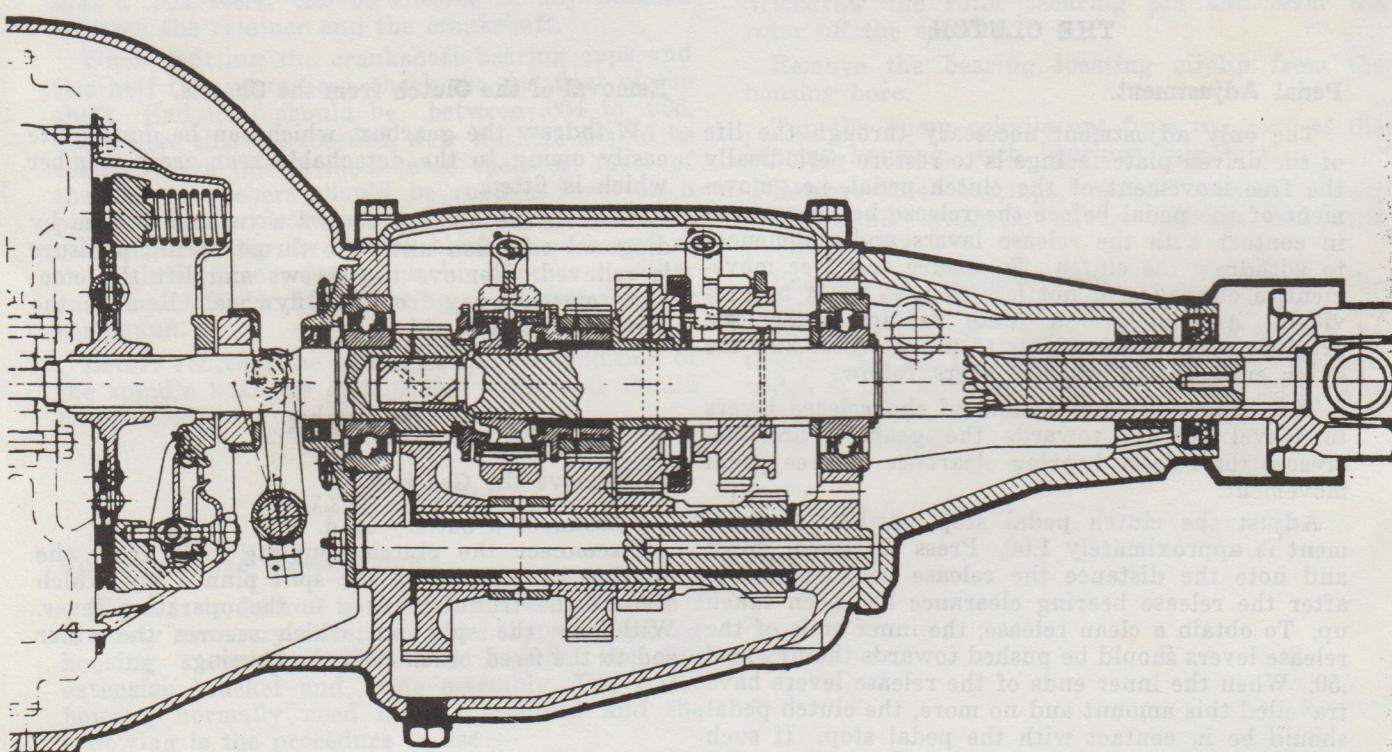


FIG. 7.—General arrangement of the clutch and gearbox.